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EXAMINER

HOYE, MICHAEL W

ART UNIT PAPER NUMBER

2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/733,332	<b>Applicant(s)</b> YAMADA ET AL.	
	<b>Examiner</b> Michael W. Hoyer	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 and 22-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on January 3, 2007 has been entered.

### ***Response to Arguments***

2. Applicants' arguments with respect to independent claims 1, 10, 16, 19, 20, 22 and 26, filed on January 3, 2007 and entered with the RCE filed on February 9, 2007, have been fully considered but are moot in view of the new ground(s) of rejection.

Regarding independent claim 1, the Applicants argue on page 16 of the Remarks that, "*Bar-El* does not teach or suggest "performing a first signal processing on said television content data according to [an] operation signal" based on "an operation by a viewer".

In response, the Examiner respectfully disagrees with the Applicants because *Bar-El* specifically teaches the claimed "performing an operation by a viewer and outputting an operation signal based on said operation" as met by a pointing device 16, such as a mouse, a trackball, a touch screen, etc. (see Figs. 1, 6 and 7, and pg. 9, lines 1-18) and by the personalization module 26/62 receiving a user's requested video, the personalized data to be implanted therein and the video parameters, which is the result of the "outputting an operation

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signal...” (see pg. 12, lines 10-12, also see pg. 5:1-7, pg. 7:8-10 and 20-22, and pg. 8:19-24).

The claimed “performing a first signal processing on said television content data according to software ... and said operation signal to output first output content data”, is met primarily by the video personalization module 26/62 (as shown in Figs. 2, 4, 6 and 7, and as described in the sections cited above), which further comprises a video personalization scheduler 42, an image adapter 40, personalized data storage 38, and mixer 44, where television content data is processed with the operation signal (see pg. 17, line 3 – pg. 18, line 5, and pg. 13, line 23 – pg. 16, line 21 for a more detailed description of the types of signal processing that occur in a video personalization module and the resulting output content data). For example, mixer 44 can replace the original frame data with the image data or it can blend the two, or it can perform any desired other mixing operation. The claimed “software...” is met by the *Carr* reference as previously combined with *Bar-El* and described in the rejections below.

In addition, with regards to the Applicants’ argument that, “*Bar-El* fails to teach or suggest performing both the “first signal processing” and the “second signal processing” recited in claim 1”, the Examiner respectfully disagrees because *Bar-El* specifically teaches that the video personalization module 26/62 (as shown in Figs. 2, 4, 6 and 7), which further comprises a video personalization scheduler 42, an image adapter 40, personalized data storage 38, and mixer 44, where video personalization module 26/62 performs multiple types of signal processing, including both types as claimed, where television content data is processed with the operation signal as described above (see pg. 17, line 3 – pg. 18, line 5, and pg. 13, line 23 – pg. 16, line 21 for a more detailed description of the types of signal processing that occur in a video personalization module and the resulting output content data), and the “second signal

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processing” is met by the video unit 14 and video personalization module 26/62, and more specifically, mixer 44 also transmits the name associated with the implanted image and some indication of its location in the frame . . . The indication produced by the mixer is an out line of the area within which the implanted image sits or a listing of the pixels which include the implanted image. This information is transmitted together with the personalized frame (see p. 15, line 22 – p. 16, line 21, also see the sections cited above regarding a more detailed description of the types of processing that occur in the video personalization module 26/62 and the resulting output content data generated).

The Applicants also argue on page 17 that, “independent claims 10, 16, 19-20, 22 and 26 are allowable over *Bar-El* and *Carr* for reasons similar to those explained above in relation to claim 1.” In addition to, the Applicants argue on page 17-18 that because claims 2-4, 6-9, 11-12, 14-15, 17-18, 23-28 and 30-33 are dependent from one of claims 1, 10, 16, 19-20, 22 and 26, the dependent claims listed above should also be allowable over *Bar-El* and *Carr*.

In response, the Examiner refers to the remarks made above for independent claim 1.

Finally, regarding dependent claims 5, 13 and 29, which were previously rejected under 35 U.S.C. § 103(a) as being unpatentable over *Bar-El*, in view of *Carr*, in further view of *Sitrick* (USPN 6,425,825), the Applicants repeat the arguments regarding claims 1, 10 and 26.

In response, the Examiner refers to the remarks made above for independent claim 1.

### ***Claim Rejections - 35 USC § 103***

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-12, 14-28 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-El (WO 99/26415), in view of Carr (US 2003/0133043), previously cited by the Examiner.

As to claim 1, note the Bar-El reference which discloses a data transmission method. The claimed broadcasting first data containing television content data and auxiliary data provided for signal processing at a viewer end is met by the video sequence data, the video parameters data, and the personalized data, which are transmitted from the video server 11 to the user computer 12, or if the network is that of cable or satellite television, in a local “set-top” box (STB) (see Figs. 6 and 7 and pg. 17, line 3 – pg. 18, line 5), also the video services may include broadcasting of standard TV programs over the air, through cable systems or via satellite, which also may be digital TV video services as well as live streams over the Internet (see pgs. 1-2 and page 17, line 15). The claimed receiving said first data at said viewer end is met by the user computer 12 or STB receiving all of the data as described above (pg. 17, line 10 – pg. 18, line 5). The claimed “performing an operation by a viewer and outputting an operation signal based on said operation” is met by a pointing device 16, such as a mouse, a trackball, a touch screen, etc. (see Figs. 1, 6 and 7, and pg. 9, lines 1-18) and user’s requested video (see pg. 12, lines 10-12, also see pg. 5:1-7, pg. 7:8-10 and 20-22, and pg. 8:19-24). The claimed “performing a first signal processing on said television content data according to software stored in a removable recording

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medium and said operation signal to output first output content data”, is met in-part by the video personalization module 26/62 (as shown in Figs. 2, 4, 6 and 7, and as described in the sections cited above), which further comprises a video personalization scheduler 42, an image adapter 40, personalized data storage 38, and mixer 44, where television content data is processed with the operation signal (see pg. 17, line 3 – pg. 18, line 5, and pg. 13, line 23 – pg. 16, line 21 for a more detailed description of the types of signal processing that occur in a video personalization module and the resulting output content data). For example, mixer 44 can replace the original frame data with the image data or it can blend the two, or it can perform any desired other mixing operation. Bar-El does not explicitly disclose performing a first signal processing on the television content data according to software stored in a removable recording medium.

However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (§ [0014]), may use software stored in a removable recording medium as stated below:

Various software or firmware (formed of modules, routines, or other layers, for example) may be stored or otherwise tangibly embodied in one or more machine-readable storage media in the information delivery system. Storage media suitable for tangibly embodying software and firmware instructions may include different forms of memory including semiconductor memory devices such as dynamic or static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; magnetic disks such as fixed, floppy and removable disks; other magnetic media including tape; and optical media such as CD or DVD disks. The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts (see § [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems

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which have television broadcast reception capabilities may have software stored in a removable recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and expandability, including the capability of making software changes or providing new or additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed “performing a second signal processing using said first output content data and said television content data based on said auxiliary data to generate second output content data; and outputting the second output content data” is met by the video unit 14 and video personalization module 26/62, and more specifically, mixer 44 also transmits the name associated with the implanted image and some indication of its location in the frame . . . The indication produced by the mixer is an outline of the area within which the implanted image sits or a listing of the pixels which include the implanted image. This information is transmitted together with the personalized frame (see p. 15, line 22 – p. 16, line 21, also see the sections cited above regarding a more detailed description of the types of processing that occur in the video personalization module 26/62 and the resulting output content data generated). The claimed outputting the second output content data is met by monitor 28 (see Figs. 1, 6 and 7).

As to claim 2, Bar-El further discloses the claimed said first data contains said television content data and command data for controlling said second signal processing at the viewer end as met by the video sequence and video parameters (or television broadcast video stream), and the personalized data as described above in claim 1 (also see pg. 12, lines 3-15). The claimed said



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second signal processing is performed using first output content data is met by the video personalization module 62 receiving the content data from the processing performed at the video server 10, which includes the processing performed by the video controller 24 and object storage 22 (see Figs. 2, 4, 6 and 7) and the claimed said television content data based on said command data to generated third output content data at said viewer end is met by the processing performed by the mixer 44 (pg. 16, lines 8-10) that is located in the video personalization module 62 (pg. 17, lines 5-13), where the personalization module 62 provides output to a user television (pg. 18, lines 3-5 and Figs. 6 & 7).

As to claim 3, Bar-El further discloses the claimed said first data further contains any data provided for generation of said third output content data at the viewer end as met by the data transmitted to the user computers 12/STB as described above. The claimed said second signal processing is performed using the first output content data and said any data contained in said first data based on a command contained in said first data to generate fourth output content data is met by the personalized data and video parameters which is used to generated the fourth output content data as described above as well.

As to claim 4, Bar-El further discloses the claimed said viewer end combines said first output content data and said television content data to generate fifth output content data as met by the mixer 44 (pg. 16, lines 8-10) that is located in the video personalization module 62 (pg. 17, lines 5-13), where the personalization module 62 provides output to a user television (pg. 18, lines 3-5 and Figs. 6 & 7).

As to claim 6, Bar-El further discloses the claimed said first data contains advertisement data as one or both of said television content data and auxiliary data and said viewer end

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combines said first output content data and said advertisement data to generate and output seventh output content data as met by the data that is transmitted to the user computer as described above may comprise advertisement data (see pg. 7, lines 4-10).

As to claim 7, Bar-El further discloses the claimed said first data contains a plurality of said advertisement data and said viewer end selectively combines one or more of any of said plurality of advertisement data with said seventh output content data as met by the data provided to the mixer (see pg. 11, line 20 – pg. 12, line 15), where the mixer 44 (pg. 16, lines 8-10) is located in the video personalization module 62 (pg. 17, lines 5-13), and the personalization module 62 provides output to a user television (pg. 18, lines 3-5 and Figs. 6 & 7).

As to claim 8, Bar-El further discloses the claimed transmitting second data from said viewer end to a transmitting end and generating second television content data for transmission based on said second data at the transmitting end as met by user input being transmitted to the video server 11 from the user computer 12 (see Figs. 6 and 7; pg. 7, lines 8-10 and 17-19; pg. 8, lines 19-24; pg. 9, lines 10-18).

As to claim 9, Bar-El further discloses the claimed said first data contains command data for controlling said first signal processing at the viewer end, said first signal processing is controlled at said viewer end based on commands contained in said first data, and said second output content data is generated based on content data of a result of said controlled first signal processing is met by the user's input/viewer profile information that is sent to the video server as previously described above.

As to claim 10, note the Bar-El reference which discloses the claimed data transmission system having a transmitter for broadcasting first data and a plurality of viewer apparatuses for

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receiving the first data as met by the video server 11 and user computers 12 or STBs, as shown in Figs. 6 and 7 and as described above in claim 1, where the video server transmits or broadcasts video sequence data, video parameters data, and personalized data to the user computer 12 or STB (see pg. 17, line 3 – pg. 18, line 5) through the video controller 24 and object storage 22 (see Fig. 2 as related to Figs. 6 and 7). The claimed said transmitter broadcasts said first data containing television content data and auxiliary data provided for the processing in said viewer apparatuses is met by the video server 11 and user computers 12 or STBs as previously described above in claim 1. The claimed each viewer apparatus of said viewer apparatuses comprising a receiving means for receiving said first data is met by the video unit 14 and video personalization module 62 as shown in Figs. 6 and 7. The claimed operating means for a viewer to perform an operation and to output an operation signal based on the operation is met by a pointing device 16 or keyboard (see Figs. 1, 6 and 7, and pg. 9, lines 1-18). The claimed first signal processing means for performing a desired signal processing on said television content data according to software stored in a removable recording medium and said operation signal to output first output content data is met in-part by the video personalization module 62 (as shown in Figs. 2, 4, 6 and 7), which further comprises the video personalization scheduler 42, the image adapter 40, the personalized data storage 38, and the mixer 44 (as shown in Fig. 4). See claim 1 above for additional remarks. Bar-El does not explicitly disclose performing a desired signal processing on said television content data according to software stored in a removable recording medium. However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (§ [0014]), may use software stored in a removable recording medium as stated below:

Various software or firmware (formed of modules, routines, or other layers, for example) may be stored or otherwise tangibly embodied in one or more machine-readable storage media in the information delivery system. Storage media suitable for tangibly embodying software and firmware instructions may include different forms of memory including semiconductor memory devices such as dynamic or static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; magnetic disks such as fixed, floppy and removable disks; other magnetic media including tape; and optical media such as CD or DVD disks. The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts (see ¶ [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems which have television broadcast reception capabilities may have software stored in a removable recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and expandability, including the capability of making software changes or providing new or additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed second signal processing means for performing a predetermined processing on said first output content data and said television content data using said auxiliary data to generate second output content data is met by the video personalization module (see Figs. 2, 4, 6 and 7), and more specifically the mixer 44 located within the video personalization module (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21), also see claim 1 above for additional remarks. The claimed outputting means for outputting said second output content data is met by monitor 28 (see Figs. 1, 6 and 7).

As to claim 11, Bar-El further discloses the claimed data transmission system as set forth in claim 10, wherein said first data contains said television content data and command data for controlling said second signal processing means of said viewer apparatus as met by the video sequence and video parameters (or video stream), and the personalized data as described above in claim 1 (also see pg. 12, lines 3-15). The claimed said second signal processing means of said viewer apparatus performs signal processing based on said first output command data on content data is met by the video personalization module 62 receiving the content data from the processing performed at the video server 10, which includes the processing performed by the video controller 24 and object storage 22 (see Figs. 2, 4, 6 and 7), and the claimed said television content data to generate said second output content data is met by the processing performed by the mixer 44 (pg. 16, lines 8-10) that is located in the video personalization module 62 (pg. 17, lines 5-13), where the personalization module 62 provides output to a user television (pg. 18, lines 3-5 and Figs. 6 & 7).

As to claim 12, Bar-El further discloses the claimed said each viewer apparatus further includes a transmitting means for transmitting desired data to said transmitter and said transmitter prepares said television content data for broadcast based on said desired data as met by user input being transmitted to the video server 11 from the user computer 12 (see Figs. 6 and 7; pg. 7, lines 8-10 and 17-19; pg. 8, lines 19-24; pg. 9, lines 10-18).

As to claim 14, Bar-El further discloses the claimed said first data contains advertisement data as one or both of said television content data and auxiliary data and said second signal processing means of said viewer apparatus combines first output content data and advertisement

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data to generate and output fourth output content data as met by the data that is transmitted to the user computer as described above may comprise advertisement data (see pg. 7, lines 4-10).

As to claim 15, Bar-El further discloses the claimed said first data contains a plurality of advertisement data and said second signal processing means of said viewer apparatus selectively combines one or more of any of the plurality of advertisement data with fourth output content data as met by the data provided to the mixer (see pg. 11, line 20 – pg. 12, line 15), where the mixer 44 (pg. 16, lines 8-10) is located in the video personalization module 62 (pg. 17, lines 5-13), and the personalization module 62 provides output to a user television (pg. 18, lines 3-5 and Figs. 6 & 7).

As to claim 16, note the Bar-El reference which discloses the claimed data transmission system having a transmitter for broadcasting first data and a plurality of viewer apparatuses for receiving the first data as met by the video server 11 and user computers 12 or STBs, as shown in Figs. 6 and 7, and described above in claim 1, where the video server transmits video sequence data, video parameters data, and personalized data to the user computer 12 or STB (see pg. 17, line 3 – pg. 18, line 5) through the video controller 24 and object storage 22 (see Fig. 2 as related to Figs. 6 and 7). The claimed said transmitter broadcasts said first data containing television content data including video data and command data for controlling viewer apparatuses at a receiver end is met by the video server 11 and user computers 12 or STBs as described above. The claimed each viewer apparatus or said viewer apparatuses comprising a receiving means for receiving said first data is met by the video unit 14 and video personalization module 26/62 as shown in Figs. 2, 4, 6 and 7. The claimed signal processing means for performing desired signal processing on said television content data according to software stored in a removable recording

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medium and operations of a viewer and outputting processed television content data including video data is met in part by the video personalization module 26/62 (as shown in Figs. 2, 4, 6 and 7), which further comprises the video personalization scheduler 42, the image adapter 40, the personalized data storage 38, and the mixer 44 (as shown in Fig. 4). See claim 1 above for additional remarks. Bar-El does not explicitly disclose performing desired signal processing on said television content data according to software stored in a removable recording medium. However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (§ [0014]), may use software stored in a removable recording medium as stated below:

Various **software** or firmware (formed of modules, routines, or other layers, for example) may be stored or otherwise tangibly embodied in one or more machine-readable storage media in the information delivery system. Storage media suitable for tangibly embodying software and firmware instructions may include different forms of memory including semiconductor memory devices such as dynamic or static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; magnetic disks such as fixed, floppy and removable disks; other magnetic media including tape; and optical media such as CD or DVD disks. The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts (see § [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems which have television broadcast reception capabilities may have software stored in a removable recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and expandability, including the capability of making software changes or providing new or

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additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed signal combining means for combining the video data of said television content data with a predetermined region of the video data of the processed television content data to generate output content data containing new video data is met by the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21), also see claim 1 above for additional remarks. The claimed outputting means for outputting said generated output content data is met by monitor 28 (see Figs. 1, 6 and 7).

As to claim 17, Bar-El further discloses the claimed said television content data contained in said first data is data relating to an advertisement and said signal combining means of said viewer apparatus combines video data relating to said advertisement with a predetermined region of video data of said processed television content data to generate said output content data containing new video data as met by the data that is transmitted to the user computer/STB, as described above, may comprise advertisement data (see pg. 7, lines 4-10).

As to claim 18, Bar-El further discloses the claimed said first data contains a plurality of advertisement data and said signal combining means of said each viewer apparatus selectively combines one or more of any of said plurality of advertisement data with said output content data as met by the data provided to the mixer (see pg. 11, line 20 – pg. 12, line 15), where the mixer 44 (pg. 16, lines 8-10) is located in the video personalization module 62 (pg. 17, lines 5-13). and the personalization module 62 provides output to a user television (pg. 18, lines 3-5 and Figs. 6 & 7).



As to claim 19, note the Bar-El reference which discloses the claimed information processing method comprising generating, at a transmitting end, television content data, and broadcasting first data containing the television content data and auxiliary data provided for signal processing at a viewer end as met by the video sequence data, the video parameters data, and the personalized data, which are transmitted from the video server 11 to the user computer 12 or STB as shown in Figs. 6 and 7, and as described above in claim 1 (see pg. 17, line 3 – pg. 18, line 5). The claimed receiving, at the viewer end, said first data is met by the user computer 12 or STB receiving all of the data as described above (pg. 17, line 10 – pg. 18, line 5). The claimed performing a desired first signal processing on said television content data based on data stored in a removable recording medium at the viewer end and an operation signal based on an operation performed by a viewer, to produce first output content data is met in part by the video unit 14 and video personalization module 62 (as shown in Figs. 6 and 7), which further comprises the video personalization scheduler 42, the image adapter 40, the personalized data storage 38, and the mixer 44 (as shown in Fig. 4). See claim 1 above for additional remarks. Bar-El does not explicitly disclose performing a desired first signal processing performed on said television content data based on data stored in a **removable recording medium**. However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (§ [0014]), may use software stored in a removable recording medium as stated below:

Various software or firmware (formed of modules, routines, or other layers, for example) may be stored or otherwise tangibly embodied in one or more machine-readable storage media in the information delivery system. Storage media suitable for tangibly embodying software and firmware instructions may include different forms of memory including semiconductor memory devices such as dynamic or

static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; **magnetic disks such as fixed, floppy and removable disks; other magnetic media including tape; and optical media such as CD or DVD disks. The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts** (see ¶ [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems which have television broadcast reception capabilities may have software stored in a removable recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and expandability, including the capability of making software changes or providing new or additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed processing said first output content data and said television content data using said auxiliary data to generate second output content data is met by the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21). The claimed outputting the second output content data is met by monitor 28 (see Figs. 1, 6 and 7). The claimed transmitting data of at least one of said first output content data and said second output content data from said viewer end to the transmitting end is met by user input being transmitted to the video server 11 from the user computer 12/STB (see Figs. 6 and 7; pg. 7, lines 8-10 and 17-19; pg. 8, lines 19-24; pg. 9, lines 10-18), also see claim 1 above for additional remarks. The claimed performing, at said transmitting end, a desired information processing based on said first data to generate updated television content data for broadcast is met by the

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video server 11 gathering information regarding the responses of users to the various advertising images which the personalization system 10 implants and updating the user's profile in order to transmit images to the user based on their profile and selections (see pg. 9, line 10 – pg. 12, line 15).

As to claim 20, note the Bar-El reference which discloses the claimed information processing system having a transmitter for broadcasting first data and a plurality of viewer apparatuses for receiving the first data as met by the video server 11 and user computers 12 or STBS as shown in Figs. 6 and 7, and as previously described above in claim 1. The claimed said transmitter including a content data creating means for generating television content data is met by the video controller 24 and object storage 22 as shown in Fig. 2. The claimed first transmitting means for broadcasting said first data containing said television content data and auxiliary data provided for signal processing on a viewer end is met by the video sequence data, the video parameters data, and the personalized data, which are transmitted from the video server 11 to the user computer 12/STB as shown in Figs. 6 and 7 (see pg. 17, line 3 – pg. 18, line 5). The claimed information processing means for performing a desired information processing based on second data transmitted from said viewer apparatuses is met by the user identifier 20 and user database 21 and outputting a processing result (see Fig. 2 and pg. 10, line 3 – pg. 11, line 13). The claimed wherein said content data creating means generates said television content data to be broadcasted based on said processing result is met by the video controller 24 and object storage 22 as described above (see pg. 10, line 14 – pg. 12, line 9 for further details). The claimed each viewer apparatus of said plurality of viewer apparatuses including a receiving means for receiving said first data is met by the user computer 12/STB receiving all of the data

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as described above (pg. 17, line 10 – pg. 18, line 5). The claimed first signal processing means for performing a desired first signal processing on said television content data, based on data stored in a removable recording medium and an operation signal based on an operation performed by a viewer, said first signal processing means outputting first output content data is met in part by the video personalization module 62 (as shown in Figs. 6 and 7), which further comprises the video personalization scheduler 42, the image adapter 40, the personalized data storage 38, and the mixer 44 (as shown in Fig. 4). See claim 1 above for additional remarks.

Bar-El does not explicitly disclose performing a desired first signal processing on said television content data based on data stored in a removable recording medium. However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (§ [0014]), may use software stored in a removable recording medium as stated below:

Various **software** or **firmware** (formed of modules, routines, or other layers, for example) may be stored or otherwise tangibly embodied in one or more machine-readable storage media in the information delivery system. Storage media suitable for tangibly embodying software and firmware instructions may include different forms of memory including semiconductor memory devices such as dynamic or static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; magnetic disks such as fixed, floppy and removable disks; other magnetic media including tape; and optical media such as CD or DVD disks. The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts (see § [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems which have television broadcast reception capabilities may have software stored in a removable

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recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and expandability, including the capability of making software changes or providing new or additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed second signal processing means for processing the first output content data and said television content data using said auxiliary data to generate second output content data is met by video unit 14 and video personalization module 26/62, and more specifically, the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21), also see claim 1 above for additional remarks. The claimed outputting means for outputting said second output content data is met by monitor 28 (see Figs. 1, 6 and 7). The claimed second transmitting means for transmitting at least one of said first output content data and said second output content data is met by user input being transmitted to the video server 11 from the user computer 12 (see Figs. 6 and 7; pg. 7, lines 8-10 and 17-19; pg. 8, lines 19-24; pg. 9, lines 10-18).

As to claim 22, note the Bar-El reference which discloses the claimed data transmitter including a data generating means for generating first data containing television content data and auxiliary data provided for a predetermined signal processing in a viewer apparatus as met by the video controller 24 and object storage 22 as shown in Fig. 2, where video sequence data, video parameters data, and personalized data are transmitted from the video server 11 to the user computer 12 or STB as shown in Figs. 6 and 7 and as described above in claim 1 (see pg. 17, line 3 – pg. 18, line 5). The claimed broadcasting means for broadcasting the first data to a plurality

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of viewer apparatuses is met by the video server 11 and user computers 12/STBs as shown in Figs. 6 and 7. The claimed viewer apparatus is a predetermined apparatus which performs a desired first signal processing on said television content data, in accordance with software stored in a removable recording medium and an operation signal based on an operation performed by a viewer, and outputs first output content data is met in part by the video personalization module 62 (as shown in Figs. 6 and 7), which further comprises the video personalization scheduler 42, the image adapter 40, the personalized data storage 38, and the mixer 44 (as shown in Fig. 4) and the viewer apparatus is predetermined through a unique identification used by the server (see pg. 10, line 3 – pg. 12, line 15). See claim 1 above for additional remarks. Bar-El does not explicitly disclose performing a desired first signal processing on said television content data in accordance with software stored in a removable recording medium. However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (¶ [0014]), may use software stored in a removable recording medium as stated below:

Various **software** or **firmware** (formed of modules, routines, or other layers, for example) may be stored or otherwise tangibly embodied in one or more machine-readable storage media in the information delivery system. Storage media suitable for tangibly embodying **software** and **firmware instructions** may include different forms of memory including semiconductor memory devices such as dynamic or static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; **magnetic disks** such as fixed, **floppy and removable disks; other magnetic media including tape; and optical media** such as CD or DVD disks. The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts (see ¶ [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems which have television broadcast reception capabilities may have software stored in a removable recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and expandability, including the capability of making software changes or providing new or additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed said viewer apparatus performs a predetermined second signal processing on the first output content data and the television content data using the auxiliary data to produce second output content data is met by video unit 14 and video personalization module 26/62, and more specifically, the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21), also see claim 1 above for additional remarks. The claimed outputs second output contents data is met by monitor 28 (see Figs. 1, 6 and 7). The claimed said data generating means generates said first data containing command data for controlling one or both of the first signal processing and second signal processing using said auxiliary data is met by the video personalization module 62 receiving the content data from the processing performed at the video server 10, which includes the processing performed by the video controller 24 and object storage 22 (see Figs. 2, 4, 6 and 7).

As to claim 23, Bar-El further discloses the claimed data transmitter...further comprising a receiving means for receiving second data transmitted from said plurality of viewer apparatuses as met by user identifier 20 in video server 10 as shown in Fig. 2. The claimed computer means

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for collecting said second data transmitted from said plurality of viewer apparatuses and performing a desired computation to generate a result, wherein said data generating means generates said first data based on said second data or said result of said desired computation is met by the user identifier 20 and user database 21 working in conjunction with object storage 22, video controller 24 and video analyzer 25 as shown in Fig. 2 (see pg. 10, line 3 – pg. 12, line 23).

As to claim 24, Bar-El further discloses the claimed data transmitter... wherein said data generating means generates said first data containing program data containing video data and information for replacing a predetermined object in said video data with another object as met by the video controller 24 and object storage 22 as shown in Fig. 2 (pg. 11, line 6 – pg. 12, line 15).

As to claim 25, Bar-El further discloses the claimed data transmitter... wherein said data generating means has one or more advertisement data of a form for viewing combined with any video data as one or both of said television content data and auxiliary data as met by the objects as previously described above may comprise an advertisement or multiple advertisements (pg. 7, lines 2-10 and pg. 8, lines 11-14).

As to claim 26, note the Bar-El reference which discloses the claimed signal processor for receiving first data containing television content data and predetermined auxiliary data as met by the video personalization module 62 as shown in Figs. 6 and 7, which receives the video sequence data, the video parameters data, and the personalized data, which are transmitted from the video server 11 to the user computer 12 or STB as shown in Figs. 6 and 7 and as described above in claim 1 (see pg. 17, line 3 – pg. 18, line 5). The claimed receiving means for receiving said first data is met by the user computer 12/STB receiving all of the data (pg. 17, line 10 – pg. 18, line 5). The claimed first signal processing means for performing a desired signal



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processing on said television content data according to software stored in a removable recording medium and operations of a viewer and outputting first output content data containing video data is met in part by the video personalization module 62 (as shown in Figs. 6 and 7), which further comprises the video personalization scheduler 42, the image adapter 40, the personalized data storage 38, and the mixer 44 (as shown in Fig. 4). See claim 1 above for additional remarks. Bar-El does not explicitly disclose performing a desired signal processing on said television content data according to software stored in a **removable recording medium**. However, the Carr reference (US 2003/0133043), specifically teaches that receivers 16, which may include set-top boxes, personal computers, or other types of systems (§ [0014]), may use software stored in a removable recording medium as stated below:

Various **software or firmware** (formed of modules, routines, or other layers, for example) may be **stored** or otherwise tangibly embodied in **one or more machine-readable storage media** in the information delivery system. **Storage media** suitable for tangibly embodying **software and firmware instructions** may include different forms of memory including semiconductor memory devices such as dynamic or static random access memories, erasable and programmable read-only memories (EPROMs), electrically erasable and programmable read-only memories (EEPROMs), and flash memories; **magnetic disks** such as fixed, **floppy and removable disks**; **other magnetic media including tape**; and **optical media such as CD or DVD disks**. **The instructions stored in the one or more storage media when executed cause the information delivery system to perform programmed acts** (see § [0052]).

Therefore, it would have been obvious to have combined the Bar-El reference with the Carr reference which teaches that television set-top boxes (STBs) and/or computer systems which have television broadcast reception capabilities may have software stored in a removable recording medium, such as a disk (including a CD-ROM or DVD), a memory card or other removable recording medium for the advantage of providing increased flexibility and

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expandability, including the capability of making software changes or providing new or additional software upgrades. One of ordinary skill in the art would have been led to have performed a first signal processing on the television content data according to software stored in a removable recording medium for the advantages given above. The claimed second signal processing means for processing said first output content data and said television content data by predetermined processing using said auxiliary data to generate second output content data is met by is met by video unit 14 and video personalization module 26/62, and more specifically, the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21), also see claim 1 above for additional remarks. The claimed outputting means for outputting said second output content data is met by monitor 28 (see Figs. 1, 6 and 7).

As to claim 27, Bar-El further discloses the claimed signal processor...wherein one or both of said first signal processing means and said second signal processing means controls processing based on command data contained in said auxiliary data of said first data as met by the user computers 12/STBs, as shown in Figs. 6 and 7, where the video server 11 transmits video sequence data, video parameters data, and personalized data to the user computer 12/STB (see pg. 17, line 3 – pg. 18, line 5) through the video controller 24 and object storage 22 (see Fig. 2 as related to Figs. 6 and 7).

As to claim 28, Bar-El further discloses the claimed said second signal processing means combines video data of said first output content data with a predetermined region of video data of said television content data to generate third output content data containing new video data as met by the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21).

As to claim 30, Bar-El further discloses the claimed said second signal processing means combines video data of said television content data with a predetermined region of video data of said first output content data to generate fifth output content data as met by the mixer 44 (see Fig. 4 and pg. 14, line 8 – pg. 16, line 21).

As to claim 31, Bar-El further discloses the claimed said second signal processing means combines said fifth output content data and advertisement data contained in said first data to generate sixth output content data as met by the mixer as described above and the data that is transmitted to the user computer/STB as described above may comprise advertisement data (see pg. 7, lines 4-10).

As to claim 32, Bar-El further discloses the claimed said second signal processing means combines selectively one or more of any of a plurality of advertisement data contained in said first data with said sixth content data as met objects processed by the mixer as described above, which may comprise an advertisement or multiple advertisements (pg. 7, lines 2-10, pg. 8, lines 11-14 and pg. 11, line 6 – pg. 12, line 15).

As to claim 33, Bar-El further discloses the claimed transmitting means for transmitting desired data to a source of transmission of said first data as met by the video unit 14 (Figs. 6 and 7), which may transmit data back to the video sever 11, for example, user input may be transmitted to the video server 11 from the user computer 12/STB (see pg. 7, lines 8-10 and 17-19; pg. 8, lines 19-24; pg. 9, lines 10-18).

1. Claims 5, 13 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-El, in view of Carr, in further view of Sitrick (USPN 6,425,825), all cited by the Examiner.

As to claim 5, the Bar-El reference discloses the claimed data transmission method as described in claim 4 above. However, the Bar-El reference does not explicitly disclose that the first output content data at the viewer end contains data of any game character and said viewer end replaces video data of a predetermined object contained in said first data with data of the game character of said first output content data to generate sixth output content data. The Sitrick reference teaches a system and methodology where replacement predefined character images and existing game display functions, including user visual images such as, a “newscaster”, a “cameo guest”, or a “synthetic actor” with predetermined actions, may be utilized in association with predefined game character and game display functions (col. 13, lines 35-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of the Bar-El reference, which teaches a data transmission method for replacing objects such as advertisement images in the output received by a user, with the additional teachings of the Sitrick reference which teaches the features of replacing a predefined object with a game character for the advantage of allowing a user to interactively select various types of game characters for use in their game system. One of ordinary skill in the art would have been led to make such a modification for the advantages given above specifically for use with an interactive television/computer game system.

As to claim 13, the claim is rejected based on similar grounds as the rejection of claim 5 above.

As to claim 29, the claim is rejected based on similar grounds as the rejection of claim 5 above.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is **571-272-7346**.

The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at **571-272-7353**.

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April 25, 2007

A handwritten signature in black ink, appearing to read "Michael W. Hoyer". The signature is fluid and cursive, with the first name "Michael" being the most prominent.

Michael W. Hoyer  
Patent Examiner  
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